# Pioneers in Quality<sup>TM</sup> Expert to Expert Series: STK-5 & AMI-8

9-10 am (PT) 10-11 am (MT) 11 am-12 pm (CT) 12-1 pm (ET)





## For those participating that would like to use the Closed Captioning Service:

• Use this link to access the CC service:

http://www.captionedtext.com/client/event.as
px?CustomerID=1519&EventID=3849131

- You will also need this passcode 3849131.
- This information is also in the Chat box with a clickable link.



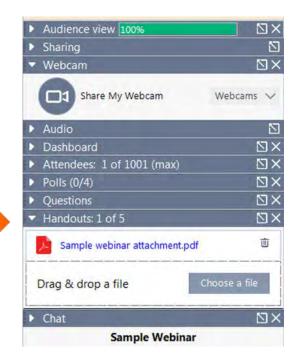
#### At the end of this session, participants will be able to:

- Apply concepts learned about the new Clinical Quality Language (CQL) expression language for the STK-5 & AMI-8a eCQMs
- Identify common issues and questions regarding STK-5 & AMI-8a eCQMs and
- Prepare to implement the CQL expression language for the 2019 eCQM reporting year (2020 data submission)



#### Slides are available for download now!

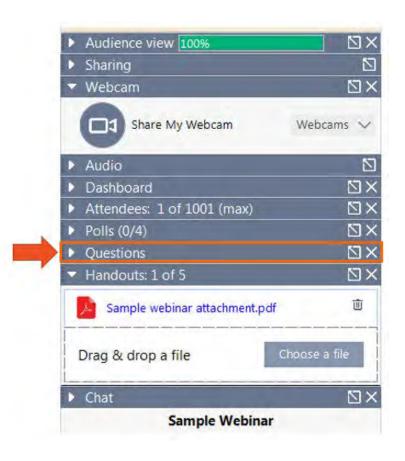
- To access the slides,
   see the GoToWebinar
   "Handouts" Section is
   your participant
   dashboard
- Click the downward triangle to open the Handouts list, select the slides for today's session, and download.





#### This program is designed to be interactive.

- All participants are connected in listen-only mode; we are not using the raised hands feature
- Ask questions through the Questions function in the Dashboard
- Visit any links or resources noted in the slides
- Download the slides and share the recording



## Pioneers in Quality<sup>™</sup> Expert to Expert Series: STK-5 and AMI-8a





In February, the webinar recording and slide deck will be accessible on The Joint Commission website via the Expert to Expert landing page

(https://www.jointcommission.org/piq\_expert\_to\_expert\_series/).

As follow-up items are posted, an email will be sent to all individuals that registered.



## CE credits are provided for the Expert to Expert Series Webinars.

## This webinar is approved for 1.0 Continuing Education Credit for:

- Accreditation Council for Continuing Medical Education (ACCME)
- American Nurses Credentialing Center (ANCC)
- American College of Healthcare Executives (ACHE)
- California Board of Registered Nursing
- International Association for Continuing Education and Training (IACET)
   (.1 credit)
- Certified Joint Commission Professional (CJCP) Recertification Credit
   Continuing Education credits are available for the <u>live webinar</u>
   <u>presentation only.</u> Credits <u>will not</u> be available for webinar
   replays.



#### To claim credits, you must have:

- 1) Individually registered for the webinar.
- 2) <u>Listened to the webinar in its entirety.</u> Only those listening live during the session are eligible to receive credit\*.
- 3) Completed a post-program evaluation/attestation\*\*.
- \* If you are listening with colleagues and did not use your own link/phone line to join, you can still claim CE credit if you meet these three criteria. An automated email after this session will provide information how to access the survey.
- \*\* A program evaluation/attestation survey link will be sent to participants' emails after the webinar. For those completing the evaluation *printable certificates will be emailed 2 weeks after the session*; all participant CE certificates will be sent at the same time.



#### **Disclosure Statement**

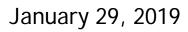
These staff and speakers have disclosed that neither they nor their spouses/partners have any financial arrangements or affiliations with corporate organizations that either provide educational grants to this program or may be referenced in this activity:

- Lisa Anderson, MSN, RN Project Director, eClinical, Department of Quality Measurement
- Mia Nievera, MSN, RN Associate Project Director, eClinical, Department of Quality Measurement
- Karen Kolbusz, MBA, BSN, Associate Project Director, Department of Quality Measurement
- Lynn Perrine, MSN, RN, Senior Nurse Informaticist, Lantana Consulting Group

Mia Nievera, MSN, RN

Karen Kolbusz, MBA, BSN

## STK 5- Antithrombotic Therapy By the End of Hospital Day 2 (CMS72v7)





#### Introduction

#### Antithrombotic Therapy By End of Hospital Day Two



- Stroke is the No. 5 cause of death and a leading cause of serious, long-term disability in America (American Heart Association, 2018).
- The effectiveness of antithrombotic agents in reducing stroke mortality, stroke-related morbidity and recurrence rates has been studied in several large clinical trials. Aspirin is the antithrombotic agent that has been tested the most extensively.
- Early antithrombotic therapy, unless contraindicated, is recommended to reduce morbidity and mortality in patients with acute ischemic stroke.
- Oral administration of aspirin (initial dose is 325 mg) within 24 to 48 hours after stroke onset is recommended for treatment of most patients (Class I; Level of Evidence A) (Powers WJ, et. al., 2018).

Mia Nievera, MSN, RN

### **CQL Basics Overview**



#### Electronic Clinical Quality Measures (eCQM)

**Evolving eCQM Standards** 



	Metadata	Data Model	Logic
Calendar Year 2018	HQMF (Metadata, Population Structure	Quality Data Model	
Calendar Year 2019	HQMF (Metadata, Population Structure	Quality Data Model	Clinical Quality Language









#### **Population Criteria**

#### ■ Initial Population

TJC. "Encounter with Principal Diagnosis and Age"

#### **▲** Denominator

TJC. "Ischemic Stroke Encounter"

#### ■ Denominator Exclusions

TJC. "Ischemic Stroke Encounters with Discharge Status" union TJC. "Comfort Measures during Hospitalization"

#### ▲ Numerator

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with "Antithrombotic Therapy at Discharge" DischargeAntithrombotic such that DischargeAntithrombotic.authorDatetime during IschemicStrokeEncounter.relevantPeriod

#### **Definitions**

#### ▲ Antithrombotic Not Given at Discharge

["Medication, Not Discharged": "Antithrombotic Therapy"] NoAntithromboticDischarge where NoAntithromboticDischarge.negationRationale in "Medical Reason" or NoAntithromboticDischarge.negationRationale in "Patient Refusal"

#### ▲ Antithrombotic Therapy at Discharge

["Medication, Discharge": "Antithrombotic Therapy"]

#### ▲ Denominator

TJC, "Ischemic Stroke Encounter"

#### ■ Denominator Exceptions

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with "Antithrombotic Not Given at Discharge" NoDischargeAntithrombotic such that NoDischargeAntithrombotic.authorDatetime during IschemicStrokeEncounter.relevantPeriod

#### **Functions**

#### ■ Global.CalendarAgeInYearsAt(BirthDateTime DateTime, AsOf DateTime)

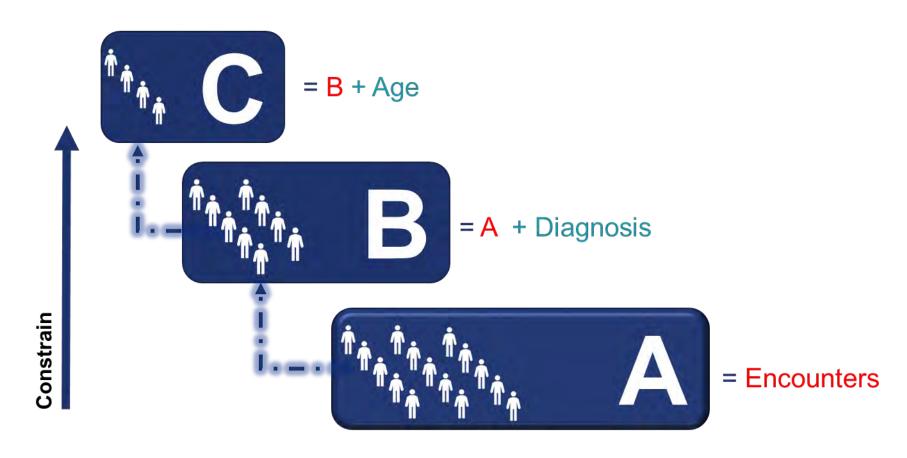
years between ToDate(BirthDateTime)and ToDate(AsOf)

#### ■ Global.Hospitalization(Encounter "Encounter, Performed")

( singleton from ( ["Encounter, Performed": "Emergency Department Visit"] EDVisit where EDVisit.relevantPeriod ends 1 hour or less on or before start of Encounter.relevantPeriod return if X is null then Encounter, relevant Period else Interval [start of X, relevant Period, end of Encounter, relevant Period]

#### Building **Blocks**





#### **CQL** Definition







#### **Initial Population:**

TJC. Encounter with Principal Diagnosis and Age

#### ▲ TJC.Encounter with Principal Diagnosis and Age

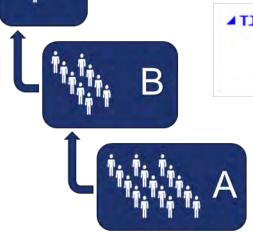
"All Stroke Encounter" AllStrokeEncounter
with ["Patient Characteristic Birthdate"] BirthDate
such that Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod) >= 18

#### ▲ TJC.All Stroke Encounter

"Non Elective Inpatient Encounter" (NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### **▲ TJC.Non Elective Inpatient Encounter**

["Encounter, Performed": "Non-Elective Inpatient Encounter"] NonElectiveEncounter where Global."LengthInDays"(NonElectiveEncounter.relevantPeriod)<= 120 and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"

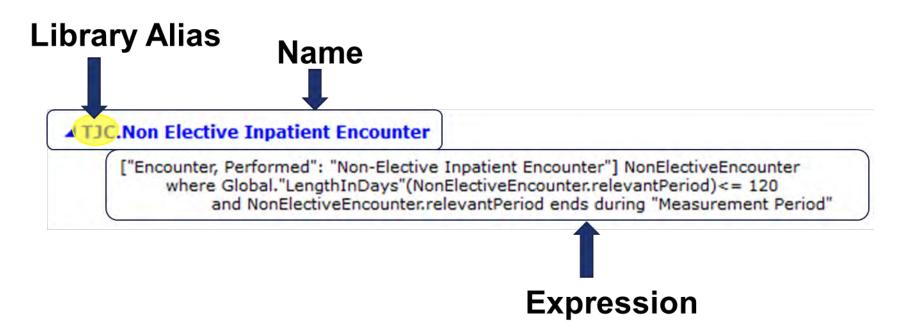


Constrain

#### **Definition Anatomy**

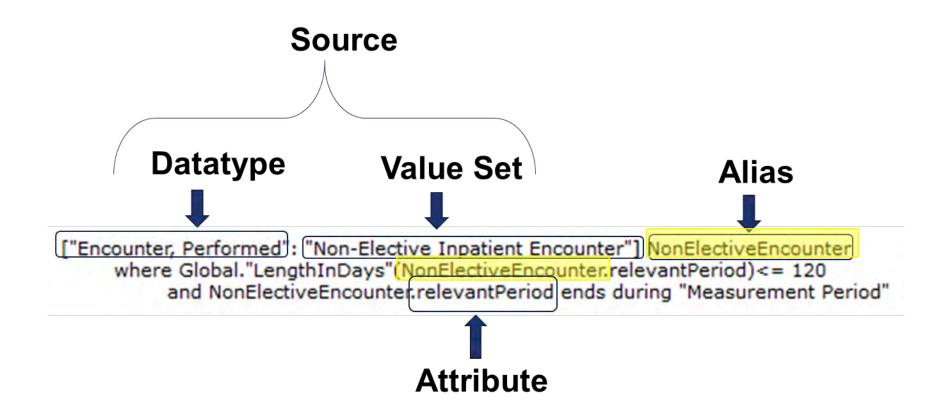


#### Definitions are made up of:



#### **Definition Anatomy**





#### **Definition Anatomy- Value Sets**

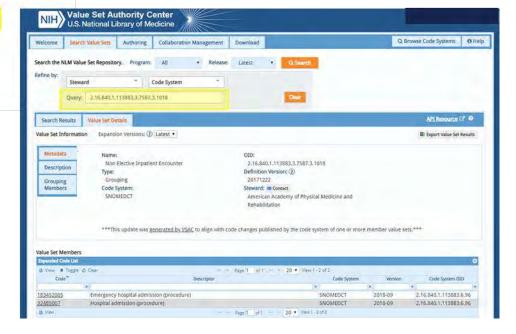






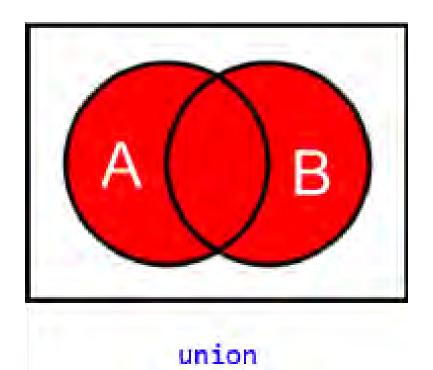
#### **Terminology**

- valueset "Antithrombotic Therapy" using "2.16.840.1.113883.3.117.1.7.1.201"
- valueset "Comfort Measures" using "1.3.6.1.4.1.33895.1.3.0.45"
- valueset "Discharge To Acute Care Facility" using "2.16.840.1.113883.3.117.1.7.1.87"
- valueset "Discharged to Health Care Facility for Hospice Care" using "2.16.840.1.113883.3.117,1,7,1.207"
- valueset "Discharged to Home for Hospice Care" using "2.16.840.1.113883.3.117.1.7.1.209"
- valueset "Emergency Department Visit" using "2.16.840.1.113883.3.117.1.7.1.292"
- valueset "Ethnicity" using "2.16.840.1.114222.4.11.837"
- valueset "Hemorrhagic Stroke" using "2.16.840.1.113883.3.117.1.7.1.212"
- valueset "Ischemic Stroke" using "2.16.840.1.113883.3.117.1.7.1.247"
- valueset "Left Against Medical Advice" using "2.16.840.1.113883.3.117.1.7.1.308"
- valueset "Medical Reason" using "2.16.840.1.113883.3.117.1.7.1.473"
- valueset "Non-Elective Inpatient Encounter" using "2.16.840.1.113883.3.117.1.7.1.424"
- valueset "ONC Administrative Sex" using "2.16.840.1.113762.1.4.1"
- valueset "Patient Expired" using "2.16.840.1.113883.3.117.1.7.1.309"
- valueset "Patient Refusal" using "2.16.840.1.113883.3.117.1.7.1.93"
- valueset "Payer" using "2.16.840.1.114222.4.11.3591"
- valueset "Race" using "2.16.840.1.114222.4.11.836"



#### **Common CQL Operators**





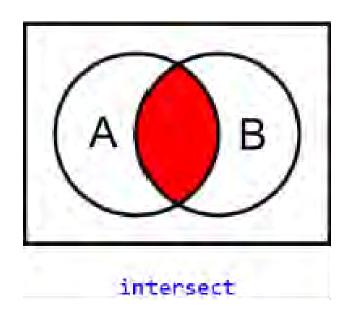
## **Example: Combining a list of Diagnoses**

▲ History of Uterine Surgery Diagnosis

```
["Diagnosis": "Perforation of Uterus"]
union ["Diagnosis": "Uterine Window"]
union ["Diagnosis": "Uterine Rupture"]
union ["Diagnosis": "Cornual Ectopic Pregnancy"]
```

#### **Common CQL Operators**





#### **Example:**

List A= All inpatient encounters with age ≥ 18 List B= All encounters with a CBC level

#### Result of intersection=

a list of any inpatient encounters with age  $\geq$  18 and a CBC level

#### Initial Population- STK-5 (CMS72v7)



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

#### **Initial Population:**

TJC.Encounter with Principal Diagnosis and Age

#### TJC. Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global. "CalendarAgeInYearsAt" (BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

#### TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### TJC.Non Elective Inpatient Encounter:

["Encounter, Performed": "Non-Elective Inpatient Encounter"]
 NonElectiveEncounter
 where Global. "LengthInDays" (NonElectiveEncounter.relevantPeriod) <= 120 and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"</li>



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

#### **Initial Population:**

TJC.Encounter with Principal Diagnosis and Age

#### TJC.Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global. "CalendarAgeInYearsAt" (BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

#### TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### TJC.Non Elective Inpatient Encounter:

["Encounter, Performed": "Non-Elective Inpatient Encounter"]
NonElectiveEncounter
where Global."LengthInDays"(NonElectiveEncounter.relevantPeriod)<= 120 and
NonElectiveEncounter.relevantPeriod ends during "Measurement Period"</p>



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

#### **Initial Population:**

TJC. Encounter with Principal Diagnosis and Age

#### TJC.Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global. "CalendarAgeInYearsAt" (BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

#### TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### TJC.Non Elective Inpatient Encounter:

["Encounter, Performed": "Non-Elective Inpatient Encounter"] NonElectiveEncounter where Global." <a href="LengthInDays" (NonElectiveEncounter.relevantPeriod" > 120</a> and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

#### **Initial Population:**

TJC. Encounter with Principal Diagnosis and Age

#### TJC.Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global. "CalendarAgeInYearsAt" (BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

#### TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### TJC.Non Elective Inpatient Encounter:

["Encounter, Performed": "Non-Elective Inpatient Encounter"] NonElectiveEncounter where Global."LengthInDays"(NonElectiveEncounter.relevantPeriod)<= 120 and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

#### **Initial Population:**

TJC.Encounter with Principal Diagnosis and Age

#### TJC.Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global. "CalendarAgeInYearsAt" (BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

#### TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### TJC.Non Elective Inpatient Encounter:

["Encounter, Performed": "Non-Elective Inpatient Encounter"] NonElectiveEncounter where Global."LengthInDays"(NonElectiveEncounter.relevantPeriod)<= 120 and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

#### **Initial Population:**

TJC.Encounter with Principal Diagnosis and Age

#### TJC.Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global. "CalendarAgeInYearsAt" (BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

#### TJC.All Stroke Encounter:

"Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### TJC.Non Elective Inpatient Encounter:

["Encounter, Performed": "Non-Elective Inpatient Encounter"] NonElectiveEncounter where Global."LengthInDays"(NonElectiveEncounter.relevantPeriod)<= 120 and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

#### **Initial Population:**

TJC.Encounter with Principal Diagnosis and Age

#### TJC.Encounter with Principal Diagnosis and Age:

"All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global. "CalendarAgeInYearsAt" (BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

#### TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### TJC.Non Elective Inpatient Encounter:

["Encounter, Performed": "Non-Elective Inpatient Encounter"]
 NonElectiveEncounter
 where Global. "LengthInDays" (NonElectiveEncounter.relevantPeriod) <= 120 and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"</li>



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

#### **Initial Population:**

TJC.Encounter with Principal Diagnosis and Age

#### TJC.Encounter with Principal Diagnosis and Age:

"All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global." CalendarAgeInYearsAt" (BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

#### TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### TJC.Non Elective Inpatient Encounter:

["Encounter, Performed": "Non-Elective Inpatient Encounter"]
 NonElectiveEncounter
 where Global. "LengthInDays" (NonElectiveEncounter.relevantPeriod) <= 120 and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"</li>

#### **Denominator**



Patients with a principal diagnosis of Ischemic Stroke

#### **Denominator:**

TJC."Ischemic Stroke Encounter"

#### TJC.Ischemic Stroke Encounter:

"Encounter with Principal Diagnosis and Age" EncounterWithAge where EncounterWithAge.principalDiagnosis in "Ischemic Stroke"

#### Denominator



Patients with a principal diagnosis of Ischemic Stroke

#### Denominator:

TJC. "Ischemic Stroke Encounter"

#### TJC.Ischemic Stroke Encounter:

"Encounter with Principal Diagnosis and Age" EncounterWithAge
 where EncounterWithAge.principalDiagnosis in "Ischemic Stroke"

#### TJC.Encounter with Principal Diagnosis and Age:

• "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global. "CalendarAgeInYearsAt" (BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

#### TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### TJC.Non Elective Inpatient Encounter:

• ["Encounter, Performed": "Non-Elective Inpatient Encounter"] NonElectiveEncounter where Global."LengthInDays"(NonElectiveEncounter.relevantPeriod)<= 120 and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"

#### Denominator



Patients with a principal diagnosis of Ischemic Stroke

#### **Denominator:**

TJC. "Ischemic Stroke Encounter"

#### TJC.Ischemic Stroke Encounter:

"Encounter with Principal Diagnosis and Age" EncounterWithAge
 where EncounterWithAge.principalDiagnosis in "Ischemic Stroke"

#### TJC.Encounter with Principal Diagnosis and Age:

• "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global. "CalendarAgeInYearsAt" (BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

#### TJC.All Stroke Encounter:

• "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

#### TJC.Non Elective Inpatient Encounter:

 ["Encounter, Performed": "Non-Elective Inpatient Encounter"] NonElectiveEncounter where Global."LengthInDays"(NonElectiveEncounter.relevantPeriod)<= 120 and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered
within 24 hours prior to arrival or anytime during hospitalization
Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"



#### Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter Less Than Two Days:**

TJC. "Ischemic Stroke Encounter" <u>IschemicStrokeEncounter</u>
 where Global. "Hospitalization Length of Stay" (IschemicStrokeEncounter) < 2</li>



#### Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures' union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter Less Than Two Days:**

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
 where Global."Hospitalization Length of Stay"(IschemicStrokeEncounter) < 2</li>



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Thrombolytic Therapy Medication or Procedures:**

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of
Global. "Hospitalization" (IschemicStrokeEncounter)

#### **Thrombolytic Therapy Medication or Procedures:**

- "Thrombolytic Medication" union ["Procedure, Performed": "Intravenous or Intra-arterial Thrombolytic (t-PA) Therapy"] Thrombolytic Medication:
  - ["Medication, Administered": "Thrombolytic (t-PA) Therapy"]



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Thrombolytic Therapy Medication or Procedures:**

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of
Global. "Hospitalization" (IschemicStrokeEncounter)

- "Thrombolytic Medication" union ["Procedure, Performed": "Intravenous or Intra-arterial Thrombolytic (t-PA) Therapy"] Thrombolytic Medication:
  - ["Medication, Administered": "Thrombolytic (t-PA) Therapy"]



Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thromboly

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

**Encounter with Thrombolytic Therapy Medication or Procedures:** 

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of
Global. "Hospitalization" (IschemicStrokeEncounter)

- "Thrombolytic Medication" union ["Procedure, Performed": "Intravenous or Intra-arterial Thrombolytic (t-PA) Therapy"] Thrombolytic Medication:
  - ["Medication, Administered": "Thrombolytic (t-PA) Therapy"]



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

**Encounter with Thrombolytic Therapy Medication or Procedures:** 

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
 with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
 such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of
 Global. "Hospitalization" (IschemicStrokeEncounter)

- "Thrombolytic Medication" union ["Procedure, Performed": "Intravenous or Intra-arterial Thrombolytic (t-PA) Therapy"] Thrombolytic Medication:
  - ["Medication, Administered": "Thrombolytic (t-PA) Therapy"]



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Thrombolytic Therapy Medication or Procedures:**

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
 with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
 such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of
 Global. "Hospitalization" (IschemicStrokeEncounter)

- "Thrombolytic Medication" union ["Procedure, Performed": "Intravenous or Intra-arterial Thrombolytic (t-PA) Therapy"] Thrombolytic Medication:
  - ["Medication, Administered": "Thrombolytic (t-PA) Therapy"]



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Fncounter with Comfort Measures"

#### **Encounter with Thrombolytic Therapy Medication or Procedures:**

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of
Global. "Hospitalization" (IschemicStrokeEncounter)

- "Thrombolytic Medication" union ["Procedure, Performed": "Intravenous or Intra-arterial Thrombolytic (t-PA) Therapy"]
   Thrombolytic Medication:
  - ["Medication, Administered": "Thrombolytic (t-PA) Therapy"]



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Thrombolytic Therapy Medication or Procedures:**

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of
Global. "Hospitalization" (IschemicStrokeEncounter)

- "Thrombolytic Medication" union ["Procedure, Performed": "Intravenous or Intra-arterial Thrombolytic (t-PA) Therapy"]
  Thrombolytic Medication:
  - ["Medication, Administered": "Thrombolytic (t-PA) Therapy"]



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Thrombolytic Therapy Medication or Procedures:**

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of
Global. "Hospitalization" (IschemicStrokeEncounter)

- "Thrombolytic Medication" union <a href="mailto:ref">["Procedure</a>, <a href="Personalization">Performed</a>": "Intravenous or Intra-arterial Thrombolytic (t-PA) Therapy"</a>
  Thrombolytic Medication:
  - ["Medication, Administered": "Thrombolytic (t-PA) Therapy"]

/4/×/	Status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility	ICD10CM
	admission to current facility	



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

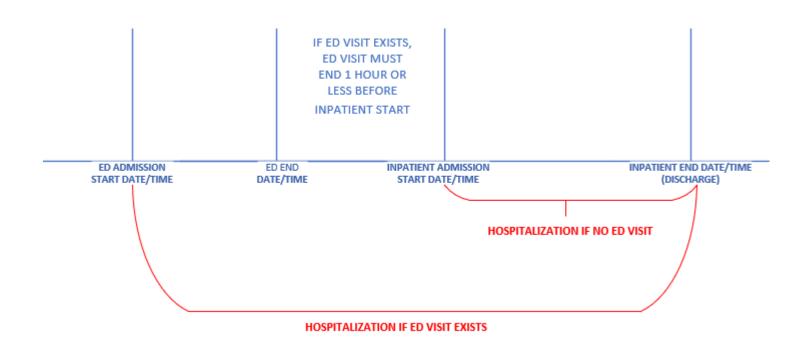
union "Encounter with Comfort Measures"

**Encounter with Thrombolytic Therapy Medication or Procedures:** 

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
 with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
 such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of
 Global. "Hospitalization" (IschemicStrokeEncounter)



#### Global. Hospitalization (Encounter "Encounter, Performed"):





Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Thrombolytic Therapy Medication or Procedures:**

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
 with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
 such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of
 Global. "Hospitalization" (IschemicStrokeEncounter)



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Thrombolytic Medication:**

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Medication" Thrombolytic such that Thrombolytic.relevantPeriod starts during Global. "Hospitalization" (IschemicStrokeEncounter)

#### **Thrombolytic Medication:**

• ["Medication, Administered": "Thrombolytic (t-PA) Therapy"]



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Thrombolytic Medication:**

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Medication" Thrombolytic such that Thrombolytic.relevantPeriod starts during Global. "Hospitalization" (IschemicStrokeEncounter)

#### Thrombolytic Medication:

["Medication, Administered": "Thrombolytic (t-PA) Therapy"]



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Comfort Measures:**

less

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with TJC. "Intervention Comfort Measures" ComfortMeasures
such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)1 day or
on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

#### TJC.Intervention Comfort Measures:



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Comfort Measures:**

less

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with TJC. "Intervention Comfort Measures" ComfortMeasures
such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)1 day or
on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

#### TJC.Intervention Comfort Measures:



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Comfort Measures:**

less

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with TJC. "Intervention Comfort Measures" ComfortMeasures
such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.
authorDatetime)1 day or
on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

#### TJC.Intervention Comfort Measures:



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Comfort Measures:**

less

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with TJC. "Intervention Comfort Measures" ComfortMeasures
such that Coalesce(start of ComfortMeasures. relevantPeriod, ComfortMeasures.authorDatetime)1 day or
on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

#### TJC.Intervention Comfort Measures:



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Comfort Measures:**

less

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with TJC. "Intervention Comfort Measures" ComfortMeasures
such that <u>Coalesce</u>(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)1 day or
on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

TJC.Intervention Comfort Measures:



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Comfort Measures:**

less

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with TJC. "Intervention Comfort Measures" ComfortMeasures
such that <u>Coalesce</u>(start of ComfortMeasures. <u>relevantPeriod</u>, ComfortMeasures. <u>authorDatetime</u>)1 day or
on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

TJC.Intervention Comfort Measures:



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered
within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Comfort Measures:**

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with TJC. "Intervention Comfort Measures" ComfortMeasures
such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime) 1 day or
on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

less

TJC.Intervention Comfort Measures:



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered
within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Comfort Measures:**

less

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with TJC. "Intervention Comfort Measures" ComfortMeasures
such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)1 day or
on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

TJC.Intervention Comfort Measures:



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Comfort Measures:**

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with TJC. "Intervention Comfort Measures" ComfortMeasures
such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime) 1 day or
on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

less

TJC.Intervention Comfort Measures:



Patients who have a duration of stay less than 2 days
Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

**Denominator Exclusions:** "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures"

union "Encounter with Thrombolytic Medication"

union "Encounter with Comfort Measures"

#### **Encounter with Comfort Measures:**

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with TJC. "Intervention Comfort Measures" ComfortMeasures
such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime) 1 day or
on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

less

TJC.Intervention Comfort Measures:

# **Numerator**



Patients who had antithrombotic therapy administered the day of or day after hospital arrival

#### **Numerator:**

"Encounter with Antithrombotic Therapy"

#### **Encounter with Antithrombotic Therapy:**

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with ["Medication, Administered": "Antithrombotic Therapy"] Antithrombotic
such that Antithrombotic.relevantPeriod starts 1 day or less on or after day of start of
Global. "Hospitalization" (IschemicStrokeEncounter)

# Numerator



Patients who had antithrombotic therapy administered the day of or day after hospital arrival

#### **Numerator:**

"Encounter with Antithrombotic Therapy"

#### **Encounter with Antithrombotic Therapy:**

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with ["Medication, Administered": "Antithrombotic Therapy"] Antithrombotic
such that Antithrombotic.relevantPeriod starts 1 day or less on or after day of start of
Global. "Hospitalization" (IschemicStrokeEncounter)



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

## **Denominator Exceptions:**

"No Antithrombotic Ordered During Hospitalization"

#### No Antithrombotic Ordered During Hospitalization:

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
 with "No Antithrombotic Ordered" NoAntithrombotic
 such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of
 Global. "Hospitalization" (IschemicStrokeEncounter)

#### No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

#### No Antithrombotic Ordered for Medical Reason or Patient Refusal:

["Medication, Not Ordered": "Antithrombotic Therapy"]
 NoAntithromboticOrder
 where NoAntithromboticOrder.negationRationale in "Medical Reason"
 or NoAntithromboticOrder.negationRationale in "Patient Refusal"

#### No Antithrombotic Administered:



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

## **Denominator Exceptions:**

"No Antithrombotic Ordered During Hospitalization"

#### No Antithrombotic Ordered During Hospitalization:

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
 with "No Antithrombotic Ordered" NoAntithrombotic
 such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of
 Global. "Hospitalization" (IschemicStrokeEncounter)

#### No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

#### No Antithrombotic Ordered for Medical Reason or Patient Refusal:

["Medication, Not Ordered": "Antithrombotic Therapy"]
 NoAntithromboticOrder
 where NoAntithromboticOrder.negationRationale in "Medical Reason"
 or NoAntithromboticOrder.negationRationale in "Patient Refusal"

#### No Antithrombotic Administered:



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

## **Denominator Exceptions:**

"No Antithrombotic Ordered During Hospitalization"

#### No Antithrombotic Ordered During Hospitalization:

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with "No Antithrombotic Ordered" NoAntithrombotic
such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of
Global."Hospitalization"(IschemicStrokeEncounter)

#### No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

#### No Antithrombotic Ordered for Medical Reason or Patient Refusal:

["Medication, Not Ordered": "Antithrombotic Therapy"]
 NoAntithromboticOrder
 where NoAntithromboticOrder.negationRationale in "Medical Reason" or NoAntithromboticOrder.negationRationale in "Patient Refusal"

#### No Antithrombotic Administered:



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

## **Denominator Exceptions:**

"No Antithrombotic Ordered During Hospitalization"

#### No Antithrombotic Ordered During Hospitalization:

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with "No Antithrombotic Ordered" NoAntithrombotic
such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of
Global."Hospitalization"(IschemicStrokeEncounter)

#### No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

No Antithrombotic Ordered for Medical Reason or Patient Refusal:

["Medication, Not Ordered": "Antithrombotic Therapy"]
 NoAntithromboticOrder
 where NoAntithromboticOrder.negationRationale in "Medical Reason"
 or NoAntithromboticOrder.negationRationale in "Patient Refusal"

#### No Antithrombotic Administered:



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

## **Denominator Exceptions:**

"No Antithrombotic Ordered During Hospitalization"

#### No Antithrombotic Ordered During Hospitalization:

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
 with "No Antithrombotic Ordered" NoAntithrombotic
 such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of
 Global. "Hospitalization" (IschemicStrokeEncounter)

#### No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

#### No Antithrombotic Ordered for Medical Reason or Patient Refusal:

["Medication, Not Ordered": "Antithrombotic Therapy"]
 NoAntithromboticOrder
 where NoAntithromboticOrder.negationRationale in "Medical Reason"
 or NoAntithromboticOrder.negationRationale in "Patient Refusal"

#### No Antithrombotic Administered:



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

# **Denominator Exceptions:**

"No Antithrombotic Ordered During Hospitalization"

#### No Antithrombotic Ordered During Hospitalization:

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
with "No Antithrombotic Ordered" NoAntithrombotic
such that NoAntithrombotic. authorDatetime
1 day or less on or after day of start of
Global. "Hospitalization" (IschemicStrokeEncounter)

#### No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

#### No Antithrombotic Ordered for Medical Reason or Patient Refusal:

["Medication, Not Ordered": "Antithrombotic Therapy"]
 NoAntithromboticOrder
 where NoAntithromboticOrder.negationRationale in "Medical Reason" or NoAntithromboticOrder.negationRationale in "Patient Refusal"

#### No Antithrombotic Administered:



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

# **Denominator Exceptions:**

"No Antithrombotic Ordered During Hospitalization"

#### No Antithrombotic Ordered During Hospitalization:

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter
 with "No Antithrombotic Ordered" NoAntithrombotic
 such that NoAntithrombotic. authorDatetime 1 day or less on or after day of start of
 Global. "Hospitalization" (IschemicStrokeEncounter)

#### No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

#### No Antithrombotic Ordered for Medical Reason or Patient Refusal:

["Medication, Not Ordered": "Antithrombotic Therapy"]
 NoAntithromboticOrder
 where NoAntithromboticOrder.negationRationale in "Medical Reason"
 or NoAntithromboticOrder.negationRationale in "Patient Refusal"

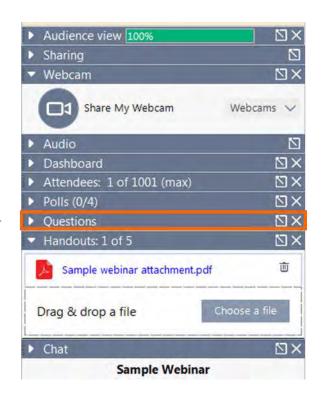
#### No Antithrombotic Administered:

# Pioneers in Quality<sup>™</sup> Expert to Expert Series: STK-5 and AMI-8a





- Please submit questions now. Click the triangle next to "Questions" in your GoToWebinar participant dashboard to expand the Questions pane.
- Include your name and organization with your question.



Lynn Perrine, MSN, RN

Angela Flanagan, MSN, RN, CPHIMS

AMI 8a - Primary PCI Received Within 90 Minutes of Hospital Arrival

(CMS53v7)





# Changes specific to AMI-8a



# Logic

- Updated measure logic from Quality Data Model (QDM)-based logic to Clinical Quality Language (CQL)-based logic.
- Information on CQL can be found at the eCQI Resource Center at https://ecqi.healthit.gov/cql.

#### Header

- Updated the measure description to make the language clear and concise. This is a language update only.
- Removed guidance statement related to the inability to explicitly express the primary percutaneous coronary intervention (PCI) with QDM-based logic.
- Updated the numerator statement to better align with the CQL-based logic and for consistency with the denominator statement.

#### Value Sets

Updated to add new codes and delete inactive codes.

# Measure description



Acute myocardial infarction (AMI) patients with a diagnostic ECG and ST-segment elevation, who receive a primary percutaneous coronary intervention (PCI) during their hospital stay, and the time from hospital arrival to PCI is 90 minutes or less

# **Initial Population**



#### **Narrative**

Patients age 18 and older at the time of hospital admission with a principal diagnosis of an Acute or Evolving Myocardial Infarction (ST-segment elevation MI) with hospital stays <= 120 days during the measurement period

## ▲ Initial Population

"Inpatient Encounters" intersect "AMI Encounter"

# **Initial Population**



#### **Definitions**

#### ▲ Inpatient Encounters

["Encounter, Performed": "Encounter Inpatient"] Encounter where Global. "LengthInDays" (Encounter. relevant Period) <= 120 and Encounter. relevant Period ends during "Measurement Period"

Global.LengthInDays(Value Interval<DateTime>)

difference in days between start of Value and end of Value

#### A AMI Encounter

["Encounter, Performed": "Encounter Inpatient"] Encounter
with ["Patient Characteristic Birthdate"] BirthDate
such that Global CalendarAgeInYearsAt(BirthDate birthDatetime)
start of Encounter, relevantPeriod)>= 18
and Encounter principalDiagnosis in "Acute or Evolving MI"

Global.CalendarAgeInYearsAt(BirthDateTime DateTime, AsOf DateTime)

years between ToDate(BirthDateTime)and ToDate(AsOf)

## Denominator



#### **Narrative**

Initial population with an ECG performed and a primary PCI procedure closest to the inpatient admission that does not start after fibrinolytic therapy

#### ▲ Denominator

## **Denominator**



#### **Definitions**

PCI Procedure

["Procedure, Performed": "PCI"]

Diagnostic Electrocardiogram

["Diagnostic Study, Performed": "Electrocardiogram (ECG)"]

**▲ Fibrinolytic**

["Medication, Administered": "Fibrinolytic Therapy"]

## **Denominator Exclusions**



#### **Narrative**

Patients who transferred from another hospital's inpatient, outpatient, or emergency department and ambulatory surgery center facilities are excluded

#### ■ Denominator Exclusions

```
"Denominator" DenominatorEncounter
where DenominatorEncounter.admissionSource in "Ambulatory surgical center"
or DenominatorEncounter.admissionSource in "Transfer From Outpatient"
or DenominatorEncounter.admissionSource in "Transfer From Emergency Department (ED) Locations"
or DenominatorEncounter.admissionSource in "Transfer From Inpatient"
```

## **Denominator Exclusions**



#### <u>Terminology</u>

- valueset "Acute or Evolving MI" using "2.16.840.1.113883.3.666.5.3022"
- valueset "Ambulatory surgical center" using "2.16.840.1.113883.3.666.5.687"
- valueset "Aortic balloon pump insertion" using "2.16.840.1.113883.3.666.5.1151"
- valueset "Cardiopulmonary arrest" using "2.16.840.1.113883.3.666.5.748"
- valueset "Electrocardiogram (ECG)" using "2.16.840.1.113883.3.666.5.735"
- valueset "Emergency Department Visit" using "2.16.840.1.113883.3.117.1.7.1.292"
- valueset "Encounter Inpatient" using "2.16.840.1.113883.3.666.5.307"
- valueset "Endotracheal Intubation" using "2.16.840.1.113762.1.4.1045.69"
- valueset "Ethnicity" using "2.16.840.1.114222.4.11.837"
- valueset "Fibrinolytic Therapy" using "2.16.840.1.113883.3.666.5.736"
- valueset "ONC Administrative Sex" using "2.16.840.1.113762.1.4.1"
- valueset "Payer" using "2.16.840.1.114222.4.11.3591"
- valueset "PCI" using "2.16.840.1.113762.1.4.1045.67"
- valueset "Race" using "2.16.840.1.114222.4.11.836"
- valueset "Transfer From Emergency Department (ED) Locations" using "2.16.840.1.113883.3.666.5.3006"
- valueset "Transfer From Inpatient" using "2.16.840.1.113883.3.666.5.3013"
- valueset "Transfer From Outpatient" using "2.16.840.1.113883.3.67.1.101.950"
- valueset "Ventricular Assist Device placement" using "2.16.840.1.113883.3.666.5.3015"

## Numerator



#### Narrative

Initial population whose time from hospital arrival to primary PCI is 90 minutes or less

#### ▲ Numerator

"Initial Population" QualifyingEncounter
with "PCI Procedure" PCI
such that PCI.relevantPeriod starts 90 minutes or less on or after Global."Hospital Arrival Time"(QualifyingEncounter)

## Numerator



#### **Definitions**

▲ PCI Procedure

["Procedure, Performed": "PCI"]

#### **Functions**

4 Global.Hospital Arrival Time(Encounter "Encounter, Performed")

start of First(("Hospitalization Locations"(Encounter))HospitalLocation sort by start of locationPeriod
).locationPeriod

# **Denominator Exceptions**



#### Narrative

Patients who did not receive PCI within 90 minutes and have a documented reason. Documented reasons include:

- "Diagnosis: Cardiopulmonary arrest"
- "Procedure, Performed: Endotracheal Intubation"
- "Procedure, Performed: Aortic balloon pump insertion"
- "Procedure, Performed: Ventricular Assist Device placement"

### ▲ Denominator Exceptions

```
( "Procedure Exceptions Within 90 Minutes of Arrival" union "Diagnosis Exception" )
```

## **Denominator Exceptions**



#### **Definitions**

#### ▲ Procedure Exceptions Within 90 Minutes of Arrival

```
"Inpatient Encounters" Encounter
with "Exception Procedures" ExceptionProcedures
such that ExceptionProcedures.relevantPeriod starts 90 minutes or less on or after Global."Hospital Arrival Time"
(Encounter)
```

#### **▲ Exception Procedures**

#### ▲ Diagnosis Exception

```
"Inpatient Encounters" Encounter
with ["Diagnosis": "Cardiopulmonary arrest"] CardiacArrest
such that CardiacArrest.prevalencePeriod starts 90 minutes or less on or after start of
Global.Hospitalization(Encounter)
```

# Frequently asked questions





# **QRDA-714**



#### Question

Should ICD-10 code I21.9 be included in the AMI value set (2.16.840.1.113883.3.666.5.3022)? It seems as though it should be included.

#### **Answer**

The logic was changed during the 2018 Annual Update to capture acute or evolving myocardial infarctions (MI) within the initial population. An acute or evolving MI is an ST-segment elevation MI. Since ICD-10-CM code I21.9 is for an unspecified acute MI it is not included.

# **CQM-3175**



#### Question

For CMS53v7 numerator condition:

"Initial Population" QualifyingEncounter
with "PCI Procedure" PCI
such that PCI.relevantPeriod starts 90 minutes or less on or after
Global."Hospital Arrival Time" (QualifyingEncounter)

Do we have to check the first Arrival time irrespective of the location (ED or IP)?

#### **Answer**

Yes. The intent of the measure is to determine if a PCI procedure was performed within 90 minutes of hospital arrival - either from the start of the ED encounter if the ED visit ends one hour or less before the start of the inpatient encounter, or the start of the inpatient encounter with no preceding ED visit.

### Resources



- 1. eCQI Resource Center: https://ecqi.healthit.gov/cql
  - One stop shop for all information related to eCQM's
  - Find EH program information via: <a href="https://ecqi.healthit.gov/eligible-hospital/critical-access-hospital-ecqms">https://ecqi.healthit.gov/eligible-hospital/critical-access-hospital-ecqms</a> such as:
    - Measure specifications
    - Technical Release Notes- which states all changes made to each measure during annual updates and during the addendum (code updates)
    - eCQM Measure Flows- to help understand the measure algorithms
  - Links to many Educational Resources such as:
    - CQL Standards: <a href="https://ecqi.healthit.gov/cql-clinical-quality-language">https://ecqi.healthit.gov/cql-clinical-quality-language</a>
    - QDM (Quality Data Model): <a href="https://ecqi.healthit.gov/qdm-quality-data-model">https://ecqi.healthit.gov/qdm-quality-data-model</a>
      - QDMv5.3 Annotated is used for the 2019 reporting
    - eCQM Implementation Check List: <a href="https://ecqi.healthit.gov/ecqm-implementation-checklist">https://ecqi.healthit.gov/ecqm-implementation-checklist</a>
    - Previous recordings & slide deck presentations: <a href="https://ecqi.healthit.gov/cgl/cgl-educational-resources">https://ecqi.healthit.gov/cgl/cgl-educational-resources</a>
  - Events page to see and register for upcoming educational events <a href="https://ecqi.healthit.gov/ecqi/ecqi-events">https://ecqi.healthit.gov/ecqi/ecqi-events</a>
- 2. Value Set Authority Center (VSAC): <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>
  - To look up the codes listed in the value sets of a measure
  - Requires license but free of charge
  - Quick link to download valuesets/Direct reference codes from the VSAC: https://vsac.nlm.nih.gov/download/ecqm?rel=20180917

## Resources



- 3. Technical COL Resources:
  - Formatting and Usage: <a href="https://github.com/esacinc/CQL-Formatting-and-Usage-Wiki/wiki">https://github.com/esacinc/CQL-Formatting-and-Usage-Wiki/wiki</a>
  - CQL GitHub Tools Repository: <a href="https://github.com/cqframework/clinical\_quality\_language">https://github.com/cqframework/clinical\_quality\_language</a>
  - CQL Specification CQL Release 1, Standard for Trial Use (STU) 2
    - http://www.hl7.org/implement/standards/product\_brief.cfm?product\_id=400
    - http://cql.hl7.org/STU2/index.html
  - CQL-Based HQMF IG Release 1, STU 2.1
    - http://www.hl7.org/implement/standards/product\_brief.cfm?product\_id=405
- 4. To submit an issue ticket for a CQL specific question, please visit the ONC JIRA site
  - https://oncprojectracking.healthit.gov/support/projects/CQLIT
- 5. To submit an issue ticket for a measure specific question, please visit the ONC JIRA site
  - https://oncprojectracking.healthit.gov/support/projects/CQM/issues
- 6. Pioneers in Quality Expert to Expert Replays and Slides: https://www.jointcommission.org/piq\_expert\_to\_expert\_series/
- 7. Pioneers in Quality Portal: <a href="https://www.jointcommission.org/topics/pioneers\_in\_quality.aspx">https://www.jointcommission.org/topics/pioneers\_in\_quality.aspx</a>

# Pioneers in Quality<sup>TM</sup>

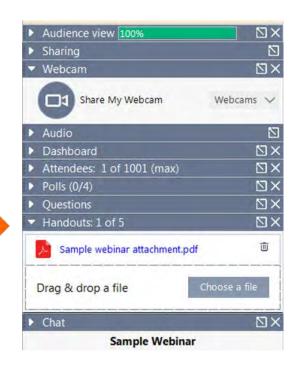
Expert to Expert Series: STK-5 and AMI-8a



## Reminder –

# Slides are available for download now!

- See the "Handouts"
   Section in your
   participant
   GoToWebinar
   dashboard
- Click the triangle to open the Handouts list, select the slides for today's session, and download.



# Pioneers in Quality<sup>™</sup> Expert to Expert Series: STK-5 and AMI-8a

Language (CQL) logic expression language for t "deep dive" into the new Clinical Quality Langua;

The Joint Commission's Pioneers in Quality: Exp connecting you with eCQM developers in an "off measures and specifically the new CQL express measure logic, followed by a discussion of commit questions in advance to be addressed during the The Expert to Expert Series will feature the follow below links to register for each session.



Slides Transcripts Recording Q&A







### Visit

https://www.jointcommiss ion.org/piq\_expert\_to\_exp ert\_series/ to register for future sessions and access slides, webinar recordings, and Q&A documents when available.

36331011	Dute	registration Link	Silues	Hallaclipts	recording	WORM
PIQ#6: eCQM Clinical Quality Language (CQL) Basics Webinar for Hospitals	29- Nov- 18	NA – Session has already occurred	11/29 PDF slide deck	11/29 PDF transcript	Not yet available	Not yet available
EE#1: STK-2, -3, & -6	11- Dec- 18	NA – Session has already occurred	12/11 PDF slide deck	Not yet available	Not yet available	Not yet available
EE#2: STK-5 and AMI- 8a	29- Jan- 18	https://attendee.gotowebinar.com/register/3913740621068329729		To be posted following session	To be posted following session	To be posted following session
EE#3: ED-1 and -2	12- Feb- 19	https://attendee.gotowebinar.com/register/8053319436273286145	_	To be posted following session	To be posted following session	To be posted following session
EE#4: VTE-1 and -2	26- Feb- 19	https://attendee.gotowebinar.com/register/129573441984732417		To be posted following session	To be posted following session	To be posted following session
EE#5: CAC-3 and EDHI-1a	5- Mar- 19	https://attendee.gotowebinar.com/register/7092534290085603329		To be posted following session	To be posted following session	To be posted following session
EE#6: PC-01 and 05	26- Mar- 19	https://attendee.gotowebinar.com/register/1876921718893015041	following	To be posted following session	To be posted following session	To be posted following session

# Pioneers in Quality<sup>™</sup> Expert to Expert Series: STK-5 and AMI-8a







**Pioneers in Quality** 



Pioneers in Quality: eCQM "Expert to Expert" Series Series Information/Session Replays Promotional Video Webinar Replays / Related Documentation Pioneers in Quality™ 2019 Joint Commission ORYX Reporting Requirements: Your Questions Answered Pioneers in Quality™ 2018 eCQM Proven Practices: An evolutionary approach and a model of collaboration

Friday 11:46 CST, November 30, 2018

Visit <a href="https://www.jointcommission.org/topics/pioneers\_in\_quality.aspx">https://www.jointcommission.org/topics/pioneers\_in\_quality.aspx</a>
for additional information about Pioneers in Quality and the Proven Practices Program.



# CE Session Evaluation Survey and Certificate



Please click on the survey link as you exit GoToWebinar or in the automated email you will receive tomorrow. You will be directed to the evaluation survey.

We use your feedback to inform future content and assess the quality of our sessions.

## The evaluation closes in 2 weeks.

After the evaluation period closes, a printable certificate will be emailed to all participants that complete the survey.





# Thank you for attending this session.

